

CLAIMS

The embodiments for which a exclusive property or privilege right is claimed are defined as follows:

1. A device that converts two primary sound signals, the left and right signals of a stereo source, into several different signals, each comprised of a positive terminal and a negative terminal, with four of these signals identified as follows: one = primary left (26), two = primary right (28), three = secondary left (30), four = secondary right (32); with said device comprised of:

- two inputs (34, 36), one left and one right, connected to said primary signals (26, 28), with each input comprised of a positive terminal and a negative terminal,
- two outputs (30, 32), one left and one right, with each output comprising a positive terminal and a negative terminal, defining said secondary signals;
- a first electrical conductor (52) connecting said positive terminal of said left input to said positive terminal of said left output,
- a second electrical conductor (54) connecting said positive terminal of said right input to said positive terminal of said right output,
- a third electrical conductor connecting said positive terminal of said left input to said negative terminal of said right output and comprising a first barrier (60),
- a fourth electrical conductor connecting said positive terminal of said right input to said negative terminal of said left output and comprising a second barrier (58),

- a fifth electrical conductor comprising a third barrier (66) and connecting said negative terminal of said left output to said negative terminal of said left input,
- a sixth electric conductor comprising a fourth barrier (64) and connecting said negative terminal of said right output to said negative terminal of said right input,

with said barriers producing a subtracting effect of the common components for said primary signals producing secondary signals wherein said common component is eliminated.

2. The device of claim 1 in which said signals one and two define primary signals and in which said signals three and four define new and respectively corresponding secondary signals, with one of said new signals being non-zero when there is a positive or negative potential difference between said primary signals.

3. A device that permits, from a primary stereo sound source comprised of common parts, to generate a second stereo sound source different from the first one wherein said common parts are eliminated; which permits to increase stereophony when the signals activate loudspeakers and when secondary loudspeakers are added to primary loudspeakers.

4. The device of claim 1 or 3 in which the stereo sound source is an encoded source.

5. The devices of claims 1 to 4 used in the passive mode, in which said primary and secondary sound signals are linked to loudspeakers.

6. The devices of claims 1 to 4 used in the passive mode, in

which said primary sound signals are linked to amplifiers and/or preamplifiers.

7. The device of claim 1 comprising also a tertiary signal and:

- a seventh electrical conductor comprising a fifth barrier and connecting said positive terminal of said left primary signal to said positive terminal of said tertiary signal.
- an eighth electrical conductor comprising a sixth barrier and connecting said positive terminal of said right primary signal to said positive terminal of said tertiary signal,
- a ninth electrical conductor linking said negative terminal of said tertiary signal to a negative terminal of a primary signal,

with said barriers producing a tertiary signal that corresponds to said common component of said left and right primary signals.

8. The device of claim 1 or 7 in which said barriers are polarized capacitors, diodes, transistors and/or another directional barrier.

9. A device that converts two primary signals, a left signal and a right signal of a stereo signal source, into two secondary signals different one from the other; with said secondary signals being identified as follows: three = secondary left (42), four = secondary right (44); with said secondary signals corresponding to said primary signals but wherein the common components of said primary signals have been eliminated; with each of said signals comprising a negative terminal and a positive terminal; with the device comprised of:

- an electrical conduction means A (52) linking said positive terminal of said left primary signal to the positive terminal of said

- left secondary signal,
- an electrical conduction means B (54) linking said positive terminal of said right primary signal to said positive terminal of said right secondary signal,
- an electrical conduction means C comprising a polarized capacitor (60) and linking said positive terminal of said left primary signal to said negative terminal of said right secondary signal;
- an electrical conduction means D comprising a polarized capacitor (58) and linking said positive terminal of said right primary signal to said negative terminal of said left secondary signal,
- an electrical conduction means E comprising a polarized blocking capacitor (66) and linking said negative terminal of said left secondary signal to said negative terminal of said left primary signal,
- an electrical conduction means F comprising a polarized blocking capacitor (64) and linking said negative terminal of said right secondary signal to said negative terminal of said right primary signal;

so that the potential difference between said positive terminals of the two primary signals affects the amplitude of the two secondary signals, with said device creating zero secondary signals when said potential difference is zero.

10. The device of claim 9 also comprising two secondary loudspeakers, one left and one right, and wherein said left and right secondary signals feed the two left and right secondary loudspeakers, respectively, by means of electrical conductors.

11. The device of claim 9 also comprising two primary loudspeakers, one left and one right, and wherein the primary signals,

left and right, feed also the two left and right primary loudspeakers respectively, by means of electrical conductors.

12. The device of claims 9 to 11 comprise a box, with said box including two inputs and two outputs, with each input or output comprising a positive terminal and a negative terminal; with said inputs of the box corresponding to the primary signals, with said outputs of said box corresponding to said secondary signals and with said conducting means located inside said box.

13. The device of claim 9 that also converts the two so-called primary signal, into a tertiary signal identified by the figure five and also comprising a positive terminal and a negative terminal; with said tertiary signal corresponding to the common components for said primary signals and wherein the other components have been eliminated; with said device also comprised of:

- an electrical conduction means G comprising a polarized capacitor that links said positive terminal of the tertiary signal to said positive terminal of said left primary signal.
- an electrical conduction means H comprising a polarized capacitor that links said positive terminal of the tertiary signal to said positive terminal of said right primary signal.
- an electrical conduction means K linking said negative terminal of said tertiary signal to the negative terminals of said primary signals.

so that said potential difference affects the amplitude of said tertiary signal, with said device creating a tertiary signal identical to the primary signals when said potential difference is zero.

14. The device of claim 13 comprises also a tertiary loudspeaker

and wherein said tertiary signal feeds said tertiary loudspeaker by means of electrical conductors.

15. The device of claims 9 and 13 wherein one or several of said polarized capacitors are substituted by at least one diode, a transistor or another electrical directional barrier.

16. The device of claim 1 in which said barrier **66** could be opposite to said barrier **64** in order to prevent the impedance from dropping from one permitting a barrier when said Potential PM **56** is positive and permitting passage when said preferred circuit **46** is positive.

SUMMARY

To increase the stereophonic potential of an ordinary stereo source, a device (20) eliminates the common signals from a stereo source. The device is installed in relation to four loudspeakers, two primary (38, 40) and two secondary (42, 44), and it includes a stereo input (34, 36) and an electric circuit that links the two secondary loudspeakers. The primary loudspeakers reproduce unaltered stereo signals and the secondary loudspeakers reproduce altered signals where (by hand: when) the circuit has eliminated the common signals from the two channels of the primary stereo source. Since all "mono" components of the sound [by hand: same amplitude, same frequency] have been eliminated from the secondary outputs, we obtain a "purely stereo" source. An additional channel (45) can be added in order to reproduce the common components of the stereo source.